

**Amendments to the Specification:**

Please replace the paragraph beginning on page 3, line 16, and continuing to page 4, line 2, with the following rewritten paragraph:

A method of resource allocation is based on a minimum-cost network flow problem, which can be solved in polynomial time. In the practice of the invention, the resource allocation problem is modeled mathematically. In the model, time is divided into intervals. For the Web server farm problem, the assumption is made that each site's demand is uniformly spread throughout each such interval. Server allocations remain fixed for the duration of ~~an~~ a fixed time interval. It is also assumed that servers are reallocated only at the beginning of an interval, and that a reallocated server is unavailable for the length of the interval during which it is reallocated. This represents the time to "scrub" the old site (customer data) to which the server was allocated, to reboot the server and to load the new site to which the server has been allocated. The length of the time interval is set to be equal to the non-negligible amount of time required for a server to prepare to serve a new customer. In current technology, this time is in the order of 5 or 10 minutes.

Please replace the paragraph beginning on page 11, line 10, and continuing to page 12, line 5, with the following rewritten paragraph:

Returning now to the drawings, the computation of new allocations (function block 23 in Figure 2) is shown in Figure 5. The process begins with an initialization step in function block 51 501. In this step `max_time` is set to denote the number of time periods. The flow network is constructed so that, for each customer  $c$  and time period  $t$ , three parallel edges  $e1(c, t)$ ,  $e2(c, t)$  and  $e3(c, t)$  are constructed from node  $n(c, t)$  to node  $n(c, t+1)$ . In addition, edges from  $n(c, t)$  to  $free(t)$  and from  $free(t)$  to  $n(c, t+1)$  and edges from the source node  $n(c, 1)$  to each node  $n(c, \text{max\_time}+1)$  to the sink are constructed. Next, in function block 52 502, the following is

done for each customer  $c$ . Let  $\mathbb{I}$  denote the integer part of the customer's demand for the time period, and let  $\mathbf{F}$  denote the fractional part. Set  $\text{capacity}(e1(c, t)) = 1$  and  $\text{benefit}(e1(c, t)) = \mathbf{R}(c, t)$ ; set  $\text{capacity}(e2(c, t)) = 1$  and  $\text{benefit}(e2(c, t)) = \mathbf{F} \times \mathbf{R}(c, t)$ ; and set  $\text{capacity}(e3(c, t)) = \infty$  and  $\text{benefit}(e3(c, t)) = 0$ . Then, in function block ~~53~~ 503, the following is done for each time period  $t$ . The capacities of all edges to and from  $\text{free}(t)$  are set to infinity, and the benefits of all edges to and from  $\text{free}(t)$  are set to zero. Next, in function block ~~54~~ 504, the capacities of all edges to the sink and from the source are set to the number of servers. The benefits of all such edges are set to zero. Now, in function block ~~55~~ 505, the maximum benefit flow of volume equal to the number of servers is found from the source to the sink in the constructed network. This calculation is performed according to known methods. Finally, in function block ~~56~~ 506, the allocations of servers to customers is set equal to the flows present on edges among a customer's nodes in the corresponding time periods. Similarly, the transitions between allocations from the flows present on the edges to and from the free pool nodes are derived.